NETWORK TUNNELING METHOD AND APPARATUS
BACKGROUND
ABSTRACT

5   Method and apparatus for tunneling any existing data-, control-, or routing-related protocol through a generic Internet protocol (IP) transport are described. The method includes providing a generic messaging structure that includes at least a transport protocol, a message buffer, a source-address field and one or more data fields for transparent routing of a user protocol over the IP transport and also providing an

10   application program interface to the generic messaging structure, the interface including a mechanism for a user to choose a desired transport and associated protocol for transparently routing the user protocol over the transport in accordance with the chosen transport protocol within the one or more data fields. Alternatively or additionally, the method includes creating a base class library including plural defined source and header

15   files and further providing a mechanism for deriving a transaction-based protocol-specific class that is compatible with the base class library. The apparatus is an application programming interface (API), preferably coded in C/C++, for transparently routing data between sockets in such an IP transport. The API includes a message buffer data structure defining a protocol-generic parent class, message, source-address and data

20   fields; a message creation mechanism for creating a message and adding it to the message buffer data structure; and a protocol creation mechanism for deriving a protocol-specific child class that renders new protocol-specific sub-fields of the protocol field of the message buffer data structure.